

## DISPENSE TIP WITH VENTED OUTLETS

### Abstract of the Disclosure

5 In a fluid pump and cartridge assembly, a cartridge includes a material inlet port, a  
material outlet port, and a feed screw. The feed screw delivers fluid to be dispensed from the  
fluid inlet to the outlet port. The fluid inlet is preferably elongated in a direction along a  
longitudinal axis of the feed screw to enhance consistency in material flow through the  
cartridge. The feed screw is preferably driven by a closed-loop servo motor to achieve high-  
performance dispensing resolution. The assembly is preferably compatible with fixed-z and  
floating-z cartridges. A optional vented dispense tip, in combination with the fluid pump,  
10 allows for repeatable deposit of fillet patterns while maintaining optimal consistency.

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